

FORM PTO-1390
(REV 10/95)

U. S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

HACK 205

TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR

10/018045

INTERNATIONAL APPLICATION NO.

PCT/AU00/00641

INTERNATIONAL FILING DATE

07 June 2000

PRIORITY DATE CLAIMED

8 June 1999

TITLE OF INVENTION

SMALL CYCLIC MIMICS OF BRAIN-DERIVED NEUROTROPHIC FACTOR (BDNF)

APPLICANT(S) FOR DO/EO/US

Richard HUGHES et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is the **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This express request to begin national examination procedures (35 U.S.C. 371(f) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(I).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau.)
 - b. ☐ has been transmitted by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.
 - ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information:
 1. PCT/IPEA/409 (International Preliminary Examination Report)
 2. PCT/IPEA/408 (Written Opinion dated July 17, 2001)
 3. Response to Written Opinion dated April 5, 2000
 6. Unexecuted Declaration/Power of Attorney

EXPRESS MAIL NO. EL 649538180 US MAILED December 10, 2001

10/018045

JG07 Rec'd PCT/PTO 10 DEC 2001

BASIC NATIONAL FEE (37 CFR 1.492(A)(1) - (5)):

Search Report has been prepared by the EPO or JPO \$890.00

International preliminary examination fee paid to USPTO (37 CFR 1.482)
..... \$710.00No international preliminary examination fee paid to USPTO (37 CFR 1.482)
but international search fee paid to USPTO (37 CFR 1.445(a)(2)) ... \$740.00Neither International preliminary examination fee (37 CFR 1.482) nor
international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$1040.00International preliminary examination fee paid to USPTO (37 CFR 1.482)
and all claims satisfied provisions of PCT Article 33(2)-(4) \$100.00

ENTER APPROPRIATE BASIC FEE AMOUNT =

\$1040.00

Surcharge of \$130.00 for furnishing the oath or declaration later than ☐ 20 ☒ 30
months from the earliest claimed priority date (37 CFR 1.492(e)).

\$130.00

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE
Total claims	46 - 20 =	26	x \$18/9
Independent	1 - 3 =	0	x \$80/40
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			x \$270/135
TOTAL OF ABOVE CALCULATIONS =			\$1404.00

\$ 234.00

\$ --

\$

\$1404.00

Reduction of 1/2 for filing by small entity, if applicable. Verified Small Entity Statement
must also be filed (Note 37 CFR 1.9, 1.27, 1.28).

\$702.00

SUBTOTAL =

\$702.00

Processing fee of \$130.00 for furnishing the English translation later than ☐ 20 ☐ 30
months from the earliest claimed priority date (37 CFR 1.492(f)). +

\$0

TOTAL NATIONAL FEE =

\$702.00

Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be
accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property+

\$

TOTAL FEES ENCLOSED =

\$702.00

Amount to be:
refunded

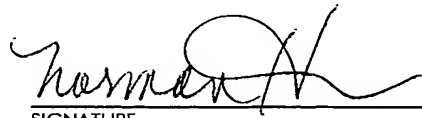
\$

charged

\$

a. ☒ A check in the amount of \$ 702.00 to cover the above fees is enclosed.b. ☐ Please charge my Deposit Account No. 50-0624 in the amount of \$ to cover the above fees.
A duplicate copy of this sheet is enclosed.c. ☒ The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit
Account No. 50-0624. A duplicate copy of this sheet is enclosed.NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a)
or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

Norman D. Hanson
FULBRIGHT & JAWORSKI L.L.P.
666 Fifth Avenue
New York, NY 10103
Customer No. 24972


SIGNATURE

Norman D. Hanson December 10, 2001
NAME

30,946

REGISTRATION NUMBER

EXPRESS MAIL NO. EL 649538180 US MAILED December 10, 2001

CERTIFICATE OF EXPRESS MAIL

"Express Mail" mailing label # EL 649538180 US

Date of Deposit December 10, 2001

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service on the date indicated above and is addressed to: Commissioner of Patents and Trademarks, Washington D.C. 20231

Fani Malikouzakis

(Name of Depositor)

Fani Malikouzakis

(Signature of Depositor)

Fulbright & Jaworski L.L.P.
666 Fifth Avenue
New York, New York 10103



Associated with Computer Patent Annuities Limited Partnership Affiliated with Griffith Hack Lawyers

The Commissioner of Patents

17. July 2001

Document D2 only discloses monomeric monocyclic peptides derived from NGF loops. For example on page 14 it is stated that:

“the antagonistic property of the analogue suggest that for agonistic binding ligand must either engage more than one cite on a given receptor, or possess the ability to induce receptor dimerisation”

In other words this document does not disclose dimers nor does it disclose BDNF sequences. Indeed there is no mention of BDNF. While, this document may disclose cyclic peptides which are capable of binding to BDNF peptides, there are no concrete examples or sequences of BDNF disclosed. Accordingly, in the light of the proposed amendments which specifically disclaims peptides based upon NGF, the present invention is novel and inventive over document D2.

Document D3 does not disclose BDNF. Indeed, document D3 is directed towards novel sequences that are *unrelated* to BDNF, or any other neurotrophin or neurotrophic factor. Document D3 discloses hypocalcemic cholinergic neurotrophic factor (HCNP). While HCNP is isolated from brain, this does not make it BDNF. BDNF is a specific factor that has been identified in the literature previously. Document D3 discloses monomeric peptides although there are some monomeric monocyclic peptides also disclosed.

Accordingly, the applicant respectfully submits that none of the prior art cited by the Examiner in any way discloses or teaches towards the presently claimed invention.

Favourable reconsideration is respectfully requested.

Yours faithfully

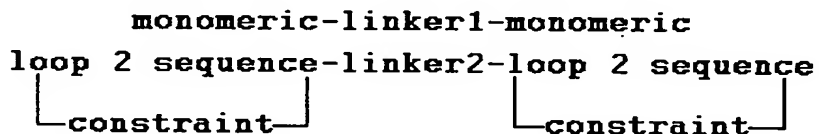
CLAIMS:

- 1). A cyclic compound comprising one or more cyclic moieties, which has a biological activity of brain-derived neurotrophic factor (BDNF), and a molecular weight less than 3,000 daltons with the proviso that the compound is not derived from NGF, NT-3 or NT-4/5 or a monocyclic monomeric compound derived from loop2 of BDNF.
- 2). A compound according to claim 1, wherein the compound is monocyclic monomeric, bicyclic dimeric, or tricyclic dimeric.
- 3). A compound according to claim 2, wherein the compound is a bicyclic dimeric compound of general formula (I):



(I).

- 4). A compound according to claim 3, wherein the constraint comprises a covalent grouping of atoms.
- 5). A compound according to claim 4, wherein the constraint and the linker may be the same or different.
- 6). A compound according to claim 2, wherein said compound is a tricyclic dimeric compound of general formula (II):



(II).

- 7). A compound according to claim 6, wherein each of the constraint, linker 1 and linker 2 may be the same or